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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,601	03/23/2004	Pradeep J. Iyer	6259P005	2458

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EXAMINER	
RIYAMI, ABDULLA A	

ART UNIT	PAPER NUMBER
2416	

MAIL DATE	DELIVERY MODE
10/17/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/806,601	IYER ET AL.	
	Examiner	Art Unit	
	ABDULLAH RIYAMI	2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 August 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13 and 15-25* is/are pending in the application.

4a) Of the above claim(s) *1-12 and 18-25* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13 and 15-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 08/26/2008, with respect to claims 13 and 15-17 have been fully considered and are persuasive. The non-final action of 04/08/2008 has been withdrawn.

Claim Rejections - 35 USC § 103

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dietrich et al. (US 7301926 B1) in view of Cameron (US 7079850 B2).

As per claim 13, Dietrich et al. discloses a method of computing a RSSI value for a management message by a plurality of access points detecting the management message, the management message originating from a station (see column 3, lines 55-65, the management message from the originating station gets encapsulated with the signal strength); placing an address of the station into a list identifying stations located in a potential coverage hole if none of the plurality of access points computes a RSSI value of the management message above the second RSSI threshold (see column 4, lines 15-25, figure 1, block 24, the central control element determines coverage holes, and figure 4, coverage analysis module 80 and stats collector 84, column 10, lines 7-29, stats collector maintains a list for each mobile station identifier and their corresponding signal strengths below a threshold signal level); removing the address of the station from the list if one of the plurality of access points computes the RSSI value of the management message above the first RSSI threshold (see figure 5a, when the same mobile is detected, then an updated signal strength is recorded and updated in the stats collector and if it is not below threshold, it is not considered as a coverage hole analysis).

Dietrich et al. does not expressly disclose setting a plurality of received signal strength indicator (RSSI) thresholds including a first RSSI threshold and a second RSSI threshold having a value lower than the first RSSI threshold.

Cameron disclose setting a plurality of received signal strength indicator (RSSI) thresholds including a first RSSI threshold and a second RSSI threshold having a value lower than the first RSSI threshold (see column 2, line 60-65, column 3, lines 5-10, column 4, lines 27-45, the central server sets a plurality of thresholds indicating event zones).

Cameron and Dietrich et al. are analogous art because they are from the same field of endeavor of transmitting and receiving management frames and measuring and recording their signal strengths.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the method of Dietrich et al.'s coverage hole detection (see column 4, lines 15-25) by incorporating Cameron's different signal level thresholds for mitigating event zones(see column 2, line 60-65, column 3, lines 5-10).

The motivation to combine would have been to have a coverage hole detection method of receiving and measuring signal strengths of mobile stations through access points, and comparing them with set thresholds then determining on or more events based on the comparison which increases the accuracy of the detection.

As per claim 15, Dietrich et al. teaches of a method, computing a RSSI value for a management message by a plurality of access points detecting the management message, the management message originating from a station (see column 4, lines 15-

25, figure 1, block 24, the central control element determines coverage holes, and figure 4, coverage analysis module 80 and stats collector 84, column 10, lines 7-29, stats collector maintains a list for each mobile station identifier and their corresponding signal strengths below a threshold signal level).

Dietrich et al. does not expressly disclose the first RSSI threshold is greater than or equal to 20 dbm0 and the second RSSI threshold is less than 20 dbm0.

Cameron discloses a method wherein the first RSSI threshold is greater than or equal to 20 dbm0 and the second RSSI threshold is less than 20 dbm0 (see column 2, line 60-65, column 3, lines 5-10, column 4, lines 27-45, the central server sets a plurality of thresholds indicating event zones).

Cameron and Dietrich et al. are analogous art because they are from the same field of endeavor of transmitting and receiving management frames and measuring and recording their signal strengths.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use Cameron's technique for of having thresholds then calculate signal strengths (see column 2, line 60-65, column 3, lines 5-10) in Dietrich et al.'s coverage method (figure 4, coverage module and stat collector).

The motivation to combine would have been to have a coverage hole detection method of receiving and measuring signal strengths of mobile stations through access points, and comparing them with set thresholds then determining on or more events based on the comparison which increases the accuracy of the detection.

As per claims 16 and 17, Dietrich et al. teaches of a method, computing a RSSI value for a management message by a plurality of access points detecting the management message, the management message originating from a station (see column 4, lines 15-25, figure 1, block 24, the central control element determines coverage holes, and figure 4, coverage analysis module 80 and stats collector 84, column 10, lines 7-29, stats collector maintains a list for each mobile station identifier and their corresponding signal strengths below a threshold signal level, an average of rssi indicates an event).

Dietrich et al. does not expressly disclose initiating an event to mitigate a coverage hole.

Cameron discloses a method of initiating an event to mitigate a coverage hole (see column 2, line 60-65, column 3, lines 5-10, column 4, lines 27-45, the central server sets a plurality of thresholds indicating event zones).

Cameron and Dietrich et al. are analogous art because they are from the same field of endeavor of transmitting and receiving management frames and measuring and recording their signal strengths.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use Cameron's technique for of having thresholds then calculate signal strengths (see column 2, line 60-65, column 3, lines 5-10) in Dietrich et al.'s coverage method (figure 4, coverage module and stat collector).

The motivation to combine would have been to have a coverage hole detection method of receiving and measuring signal strengths of mobile stations through access

points, and comparing them with set thresholds then determining on or more events based on the comparison which increases the accuracy of the detection.

Election/Restrictions

6. Newly submitted claims 21-25 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 21-25 teaches of selecting an access point with the highest signal strength whereas claims 13, 15-17 are based on coverage hole detection based on signal strength.

The inventions are directed to related different functionality and inventive concepts. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants. See MPEP § 806.05(j). In the instant case, the inventions as claimed different functions and inventive concepts.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 21-25 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ABDULLAH RIYAMI whose telephone number is (571)270-3119. The examiner can normally be reached on Monday through Thursday 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on (571) 272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aung S. Moe/
Supervisory Patent Examiner, Art Unit 2416

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